

=> fil reg  
FILE 'REGISTRY' ENTERED AT 15:05:14 ON 27 DEC 2005

=> d his

FILE 'HCAPLUS' ENTERED AT 13:06:24 ON 27 DEC 2005

L1 2 S US20040176267/PN  
SEL RN

FILE 'REGISTRY' ENTERED AT 13:07:07 ON 27 DEC 2005

L2 7 S E1-E7  
L3 STR  
L4 50 S L3  
L5 STR L3  
L6 4 S L5  
L7 STR L5  
L8 36 S L7  
L9 SCR 1838  
L10 14 S L7 NOT L9  
L11 SCR 2043  
L12 14 S L7 NOT (L9 OR L11)  
L13 STR L7  
L14 10 S L13 NOT (L9 OR L11)  
L15 STR L13  
L16 10 S L15 NOT (L9 OR L11)  
L17 SCR 1803  
L18 10 S L15 AND L17 NOT (L9 OR L11)  
L19 STR L15  
L20 1 S L19 AND L17 NOT (L9 OR L11)  
L21 1 S L19  
L22 14 S L19 FUL  
L23 0 S L22 AND L2  
SAV L22 DEL788/A

FILE 'HCAPLUS' ENTERED AT 15:02:53 ON 27 DEC 2005

L24 9 S L22

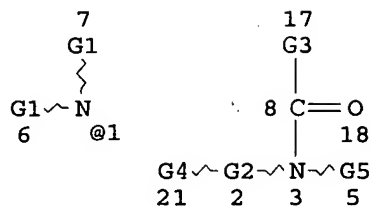
=> d que l24

L19 STR

G3~C=O  
16 @9 10

O=S=O  
11 @12 13

S=O  
@14 15



G1~NH  
19 @20

VAR G1=AK/9  
VAR G2=12/14  
VAR G3=H/AK  
VAR G4=NH2/20/1  
VAR G5=H/AK/9  
NODE ATTRIBUTES:

CONNECT IS E4 RC AT 12  
CONNECT IS E3 RC AT 14  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RSPEC I  
NUMBER OF NODES IS 20

## STEREO ATTRIBUTES: NONE

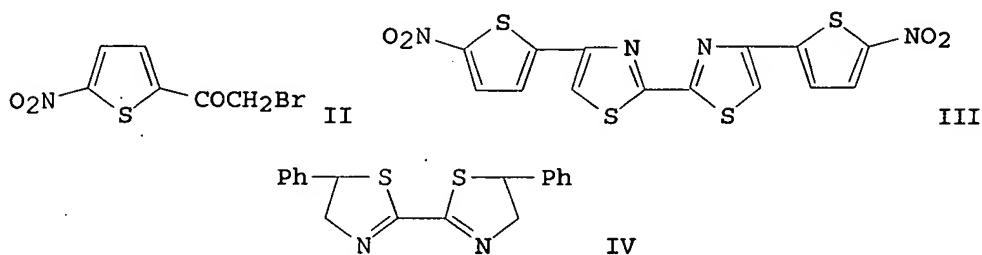
L22 14 SEA FILE=REGISTRY SSS FUL L19  
L24 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L22

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 15:05:29 ON 27 DEC 2005

=> d l24 1-24 ibib abs hitstr hitind

L24 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1978:406267 HCAPLUS  
DOCUMENT NUMBER: 89:6267  
TITLE: Derivatives of dithiooxamide  
AUTHOR(S): Arya, V. P.  
CORPORATE SOURCE: Res. Cent., Ciba-Geigy, Bombay, India  
SOURCE: Indian Journal of Pharmacy (1978), 40(1), 5-7  
CODEN: IJPAAO; ISSN: 0019-5472  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 89:6267  
GI

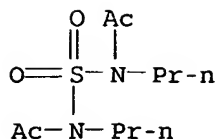


AB RNHCSCSNHR [I, R = 4-FC6H4CH2CH2, 4-ClC6H4CH2CH2, PhCH(OH)CH2, 1-ethyl-3-piperidylamino, Ph2CH] were prepared in 40-90% yields by treatment of I (R = H) with RNH2. Treatment of II with I (R = H) gave 50% III. Cyclohydration of I [R = PhCH(OH)CH2] gave 40% IV. None of the compds. exhibited outstanding pharmacol. activity to warrant further study.

IT 756-41-2  
(reaction of, with dithiooxamide)

RN 756-41-2 HCAPLUS

CN Acetamide, N,N'-sulfonylbis[N-propyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 25, 27  
 IT 91-00-9 756-41-2 1583-88-6 6789-94-2 7568-93-6  
 10531-45-0  
 (reaction of, with dithiooxamide)

L24 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1973:551614 HCAPLUS  
 DOCUMENT NUMBER: 79:151614  
 TITLE: Crosslinking of hydrophilic colloids  
 INVENTOR(S): Kyburz, Rolf  
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G.  
 SOURCE: Ger. Offen., 44 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO. -----	KIND ---	DATE -----	APPLICATION NO. -----	DATE
DE 2309098	A1	19730913	DE 1973-2309098	1973 0223
CH 563598	A	19750630	CH 1972-2722	1972 0225
FR 2173009	A1	19731005	FR 1973-4535	1973 0208
CA 1008848	A1	19770419	CA 1973-163607	1973 0213
US 4001201	A	19770104	US 1973-333247	1973 0216
US 333247	A1	19760316		
GB 1416462	A	19751203	GB 1973-8287	1973 0220
GB 1416463	A	19751203	GB 1974-52240	1973 0220
BE 795839	A1	19730823	BE 1973-127993	1973 0223
IT 977477	A	19740910	IT 1973-48413	1973 0223
JP 48095450	A2	19731207	JP 1973-21797	1973 0224

JP 57024535  
PRIORITY APPLN. INFO.:

B4 19820525

CH 1972-2722

A  
1972  
0225

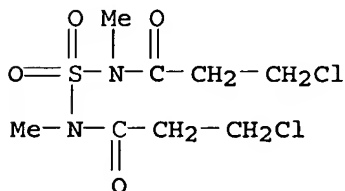
AB Organic crosslinking agents containing sulfonyl linkages are used as hardeners in photog. gelatin emulsions. Thus, 0.1 mole H<sub>2</sub>NSO<sub>2</sub>NH<sub>2</sub>, 1.1 mole 3-chloropropionyl chloride, and 0.3 ml SbCl<sub>5</sub> are reacted at 70-80°, and the (ClCH<sub>2</sub>CO<sub>2</sub>NH)<sub>2</sub>SO<sub>2</sub> (I) produced is collected. To 6 ml 6% aqueous gelatin are added 1 ml 1% aqueous dye solution, 5 ml H<sub>2</sub>O, and 1 ml 0.0025M I. This solution is coated on a cellulose triacetate support, and the swelling of the coating under various temperature and humidity conditions measured. Improved resistance to swelling is observed compared to a I-free solution

IT 50695-61-9 50695-73-3

(photographic hardening agent)

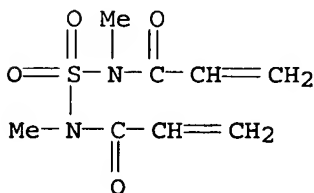
RN 50695-61-9 HCAPLUS

CN Propanamide, N,N'-sulfonylbis[3-chloro-N-methyl- (9CI) (CA INDEX NAME)



RN 50695-73-3 HCAPLUS

CN 2'-Propanamide, N,N'-sulfonylbis[N-methyl- (9CI) (CA INDEX NAME)



IC C07C; C08H; G03C

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic Processes)

IT 50695-60-8 50695-61-9 50695-62-0 50695-63-1  
 50695-64-2 50695-65-3 50695-66-4 50695-67-5 50695-70-0  
 50695-71-1 50695-72-2 50695-73-3 50695-74-4  
 50695-75-5 50695-76-6

(photographic hardening agent)

L24 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1971:450715 HCAPLUS

DOCUMENT NUMBER: 75:50715

TITLE: Cleanser with bleaching and disinfectant activity

INVENTOR(S): Disch, Karlheinz; Krings, Peter; Kuehling, Dieter; Bellinger, Horst

PATENT ASSIGNEE(S): Henkel und Cie. G.m.b.H.

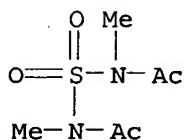
SOURCE: Ger. Offen., 26 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1953920	A	19710506	DE 1969-1953920	1969 1027

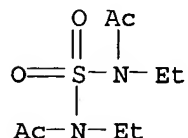
PRIORITY APPLN. INFO.: DE 1969-1953920 A 1969  
1027

AB The cleanser contains 60-95% abrasive, such as ground quartz, marble, fluorspar, kaolin, feldspar, or pumice, 5-40% of a mixture of 5-100% activator of general structure  $R_3CON(R_1)SO_2N(R_2)COR_4$  (I) and per compound such that the molar ratio of acyl groups in activator to  $H_2O_2$  in per compound is 0.1-10, and 0-5% organic complexants, inorg: builders, surfactants, enzymes, corrosion inhibitors, dyes, or perfumes. In structure I,  $R_1$  and  $R_2$  are  $C_1$ -4 alkyl, or optionally halogen substituted aryl, and  $R_3$  and  $R_4$  are  $C_1$ -5 alkyl; preferred compds. are  $N,N'$ -dimethyl- $N,N'$ -diacetylsulfamide,  $N,N'$ -diethyl- $N,N'$ -dipropionylsulfamide, or  $N,N'$ -diethyl- $N,N'$ -diacetylsulfamide. Per compds. are borate, carbonate, pyrophosphate or silicate compds., or urea or melamine perhydrates. A typical cleanser contains ground marble 88.5,  $N,N'$ -diethyl- $N,N'$ -diacetylsulfamide 3,  $C_{10}$ -15-alkylbenzenesulfonate 2.5%, and 2% each of sulfated coconut alc., borax, and  $NaBO_2 \cdot H_2O \cdot 3H_2O$ .

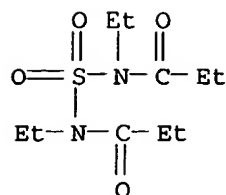
IT 29824-65-5 29824-67-7 29914-32-7  
 (activators, for detergent compns. containing borates)  
 RN 29824-65-5 HCAPLUS  
 CN Acetamide,  $N,N'$ -sulfonylbis[N-methyl- (8CI) (CA INDEX NAME)]



RN 29824-67-7 HCAPLUS  
 CN Acetamide,  $N,N'$ -sulfonylbis[N-ethyl- (8CI) (CA INDEX NAME)]



RN 29914-32-7 HCAPLUS  
 CN Propionamide,  $N,N'$ -sulfonylbis[N-ethyl- (8CI) (CA INDEX NAME)]



IC C09G  
 CC 46 (Surface Active Agents and Detergents)  
 IT 29824-65-5 29824-67-7 29914-32-7  
 29971-81-1  
 (activators, for detergent compns. containing borates)

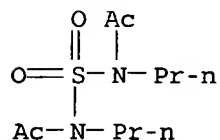
L24 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1970:446965 HCAPLUS  
 DOCUMENT NUMBER: 73:46965  
 TITLE: Oxidation, bleaching, and washing products  
 INVENTOR(S): Kuehling, Dieter  
 PATENT ASSIGNEE(S): Henkel und Cie. G.m.b.H.  
 SOURCE: Ger. Offen., 53 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1801713	A	19700611	DE 1968-1801713	1968 1008
PRIORITY APPLN. INFO.:				DE 1968-1801713 A 1968 1008

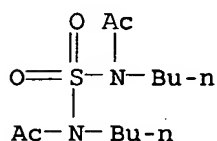
AB N,N'-Diacyl N,N'-dialkyl (or aryl) sulfamides, [R'CON(R)]<sub>2</sub>-SO<sub>2</sub>, are activators for inorg. O-releasing peroxygen compds. at low temps. From 0.5 to 1 mole activator is used per g-atom active O or 50-200 mg/l. active O. The preparation of, e.g., N,N'-dimethyl-N,N'-diacetylsulfamide is described: A solution of 4.83 moles MeNH<sub>2</sub> and 4 moles C<sub>5</sub>H<sub>5</sub>N in 1 l. petroleum ether was slowly added at -30° to a solution of 2 moles SO<sub>2</sub>Cl<sub>2</sub> in petroleum ether, agitated 1 hr at -30° and 12 hr at room temperature, the solvent removed by distillation and 200 ml dilute HCl added to the residue. The acidic reaction solution is extracted with ether, the raw diamide is recrystd. from CHCl<sub>3</sub> after evaporation of ether (yield 81.6 g, 41% yield), m. 78-80°. This diamide (0.65 mole) is slowly added with agitation at 50° to 2 moles Ac<sub>2</sub>O and 2 ml concentrated H<sub>2</sub>SO<sub>4</sub>, a clear solution is formed at 50° after 4 hr., then diluted with 150 ml. H<sub>2</sub>O and extracted with CCl<sub>4</sub>, dried over Na<sub>2</sub>SO<sub>4</sub>, and CCl<sub>4</sub> removed under vacuum. The solid residue is recrystd. from ether to yield 94.3 g (71% yield) N,N'-dimethyl-N,N'-diacetylsulfamide, m. 54-6°.

IT 756-41-2 756-42-3 29824-65-5  
 29824-67-7 29824-68-8  
 (activators, for perborate bleaching agents)

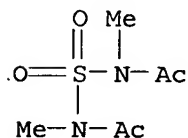
RN 756-41-2 HCAPLUS  
CN Acetamide, N,N'-sulfonylbis[N-propyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



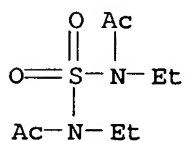
RN 756-42-3 HCAPLUS  
CN Acetamide, N,N'-sulfonylbis[N-butyl- (7CI, 8CI) (CA INDEX NAME)



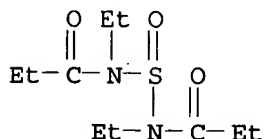
RN 29824-65-5 HCAPLUS  
CN Acetamide, N,N'-sulfonylbis[N-methyl- (8CI) (CA INDEX NAME)



RN 29824-67-7 HCAPLUS  
CN Acetamide, N,N'-sulfonylbis[N-ethyl- (8CI) (CA INDEX NAME)



RN 29824-68-8 HCAPLUS  
CN Propionamide, N,N'-sulfinylbis[N-ethyl- (8CI) (CA INDEX NAME)



IC C07C; C01B; C11D  
CC 46 (Surface Active Agents and Detergents)  
IT 756-41-2 756-42-3 6104-21-8 22504-72-9  
29824-65-5 29824-67-7 29824-68-8

29824-70-2 29971-81-1

(activators, for perborate bleaching agents)

L24 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1969:408056 HCAPLUS

DOCUMENT NUMBER: 71:8056

TITLE: Synthesis with N,N'-disubstituted sulfuric acid diamides. IX. Geometry of the sulfonyl group in substituted sulfuric acid diamides

AUTHOR(S): Sowada, Rudolf

CORPORATE SOURCE: Tech. Hochsch. Chem. "Carl Schorlemmer", Merseburg, Fed. Rep. Ger.

SOURCE: Journal fuer Praktische Chemie (Leipzig) (1969), 311(2), 228-30

CODEN: JPCEAO; ISSN: 0021-8383

DOCUMENT TYPE: Journal

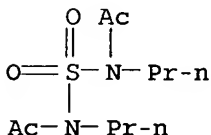
LANGUAGE: German

AB The ir spectra of (RR<sub>1</sub>N)2SO<sub>2</sub> (where R = Pr, iso-Pr, Bu, iso-Bu, sec-Bu, tert-Bu, or cyclohexyl; and R<sub>1</sub> = H, Me, Et, or Ac) are reported. The following mol. data were calculated for SO<sub>2</sub> by the method of R. J. Gillespie and E. A. Robinson (1963):  $\gamma_{SO_2}$  1228-48 cm.<sup>-1</sup>, bond length 1.44-1.435 Å., bond angle 116-17°, force constant 9.5-9.8 dynes/cm., and bond number 1.75.

IT 756-41-2 756-42-3 758-73-6  
(mol. structure of, ir spectrum in relation to)

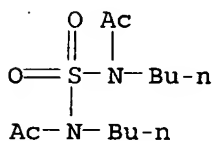
RN 756-41-2 HCAPLUS

CN Acetamide, N,N'-sulfonylbis[N-propyl- (7CI, 8CI, 9CI) (CA INDEX NAME)]



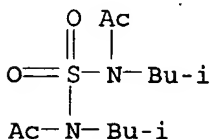
RN 756-42-3 HCAPLUS

CN Acetamide, N,N'-sulfonylbis[N-butyl- (7CI, 8CI) (CA INDEX NAME)]



RN 758-73-6 HCAPLUS

CN Acetamide, N,N'-sulfonylbis[N-isobutyl- (7CI, 8CI) (CA INDEX NAME)]





CC 73 (Spectra and Other Optical Properties)  
 IT 756-41-2 756-42-3 757-98-2 758-73-6  
 763-11-1 6104-07-0 13952-67-5 14041-87-3 23414-85-9  
 23414-86-0 23414-87-1 23414-88-2 23415-21-6 23415-26-1  
 (mol. structure of, ir spectrum in relation to)

L24 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

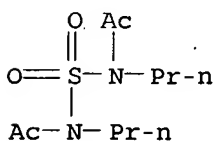
ACCESSION NUMBER: 1969:407963 HCAPLUS  
 DOCUMENT NUMBER: 71:7963  
 TITLE: Syntheses with N,N'-disubstituted sulfuric  
 acid diamides. X. Bond and group  
 refractivity of substituted sulfuric acid  
 diamides  
 AUTHOR(S): Sowada, Rudolf  
 CORPORATE SOURCE: Tech: Hochsch. Chem.; Merseburg, Fed. Rep.  
 Ger.  
 SOURCE: Journal fuer Praktische Chemie (Leipzig)  
 (1969), 311(2), 350-2  
 CODEN: JPCEAO; ISSN: 0021-8383  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German

AB The molar refractions for (RR1N)2SO2 and RHNSO2OR1 (where R = Pr,  
 iso-Pr, Bu, iso-Bu, or cyclohexyl; and R1 = Cl, Me, Et, Ac, or Pr)  
 are molar consts. formed additively from the atomic refractions of  
 the covalently bonded atoms.

IT 756-41-2 756-42-3 758-73-6  
 (optical refraction by bonds in)

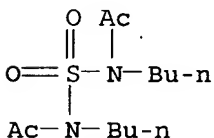
RN 756-41-2 HCAPLUS

CN Acetamide, N,N'-sulfonylbis[N-propyl- (7CI, 8CI, 9CI) (CA INDEX  
 NAME)



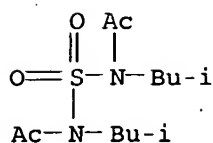
RN 756-42-3 HCAPLUS

CN Acetamide, N,N'-sulfonylbis[N-butyl- (7CI, 8CI) (CA INDEX NAME)



RN 758-73-6 HCAPLUS

CN Acetamide, N,N'-sulfonylbis[N-isobutyl- (7CI, 8CI) (CA INDEX  
 NAME)



CC 73 (Spectra and Other Optical Properties)

IT 756-41-2 756-42-3 758-73-6 3488-25-3  
 3488-26-4 3488-41-3 3488-42-4 3488-43-5 23414-81-5  
 23414-82-6 23414-83-7 23414-84-8 23414-85-9 23414-86-0  
 23414-87-1 23414-88-2 23523-53-7  
 (optical refraction by bonds in)

L24 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1967:2365 HCAPLUS

DOCUMENT NUMBER: 66:2365

TITLE: N'-Trimethylacetyl-N-phenylalkylsulfamides and phenylcyclopropylsulfamides

PATENT ASSIGNEE(S): Smith Kline and French Laboratories

SOURCE: Brit., 7 pp.

CODEN: BRXXAA

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1034490		19660629	GB	
DE 1239700			DE	
US 3267139		19660000	US	
PRIORITY APPLN. INFO.:			US	

1963

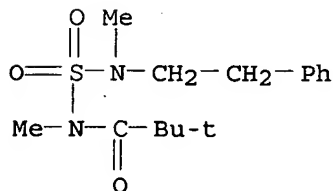
0924

GI For diagram(s), see printed CA Issue.

AB The title compds. (I and II, resp.) have central nervous system activity and anticonvulsant activity. They produce Parkinson-like symptoms in exptl. animals and are useful for evaluating new drugs for anti-Parkinson activity where A is an alkylene of 2 or 3 C atoms and R is H, Cl, or CF<sub>3</sub>. In an example of I, a mixture of 24.2 g. phenethylamine, 21.1 g. sulfamide and 300 ml. H<sub>2</sub>O is heated for 4 hrs. at 90-5° (steam bath), Et<sub>2</sub>O-extracted and the extract washed with dilute HCl, then extracted with 5% NaOH. Addition of dilute HCl and recrystn. (Et<sub>2</sub>O-hexane) gives phenethylsulfamide (III). A solution of 55.0 g. III and 16.5 g. CMe<sub>3</sub>COCl in 500 ml. C<sub>6</sub>H<sub>6</sub> is refluxed 18 hrs., then concentrated and cooled to give N'-trimethylacetyl-N-phenethylsulfamide, m. 157-8° (CHCl<sub>3</sub>). Similarly prepared were the following N'-trimethylacetyl-N-(R'-substituted)-sulfamides (R'- and m.p. given):- 3-phenylpropyl, 148-9° (CHCl<sub>3</sub>); 2-phenylpropyl, 136-7° (CHCl<sub>3</sub>); 2-phenylisopropyl, 184-5° (CHCl<sub>3</sub>); 1-phenylethyl, 179-80° (CHCl<sub>3</sub>); p-chlorophenethyl, 147-8° (CHCl<sub>3</sub>); m-chlorophenethyl, 150-1° (CHCl<sub>3</sub>); o-chlorophenethyl, 180-1° (CHCl<sub>3</sub>); p-bromophenethyl, -; p-fluorophenethyl, -; 3-methylphenethyl, -; 4-(trifluoromethyl)phenethyl, -; methyl-N-phenethyl, -; N'-dimethyl-N-phenethyl, -;

2,4-dichlorophenethyl, -; 3,4-dichlorophenethyl, -;  
 2,4-dimethylphenethyl, -; 3,4-dimethoxyphenethyl, -;  
 3,4-methylenedioxyphenethyl, -; p-hydroxyphenethyl, -;  
 p-nitrophenethyl, -; p-aminophenethyl, -. As an example of II, 20 g. trans-2-phenylcyclopropylamine is refluxed 10 hrs. in HCO<sub>2</sub>Et. Evaporation and recrystn. from Et<sub>2</sub>O gives trans-N-formyl-2-phenylcyclopropylamine (IV). A mixture of 8.0 g. IV and 1.2 g. NaH in 100 ml. C<sub>6</sub>H<sub>6</sub> is refluxed 1 hr., then a solution of 6.7 g. SO<sub>2</sub>Cl<sub>2</sub> in 20 ml. C<sub>6</sub>H<sub>6</sub> is added, with stirring, at 0-5°. The mixture is treated with an excess of gaseous NH<sub>3</sub>, allowed to stand overnight, and filtered and the filtrate washed (H<sub>2</sub>O) and evaporated to dryness in vacuo to yield trans-N-formyl-2-phenylcyclopropylsulfamide (V). V is heated 1 hr. with 3% aqueous HCl and extracted with C<sub>6</sub>H<sub>6</sub> and the extract washed (H<sub>2</sub>O) and concentrated. The residue is recrystd. (C<sub>6</sub>H<sub>6</sub>) to give trans-2-phenylcyclopropylsulfamide, m. 109-10°. Also prepared were: trans-2-(4-chlorophenyl)cyclopropylsulfamide; trans-N'-trimethylacetyl-N-[2-(4-chlorophenyl)cyclopropyl]sulfamide; cis-2-(4-chlorophenyl)cyclopropylsulfamide; cis-N'-trimethylacetyl-N-[2-(4-chlorophenyl)cyclopropyl]sulfamide; N-methyl-N-(2-phenylcyclopropyl)sulfamide; N'-trimethylacetyl-N-methyl-N-(2-phenylcyclopropyl)sulfamide; N'-trimethylacetyl-N-butyl-N-(2-phenylcyclopropyl)sulfamide.

IT 13333-10-3P  
 (preparation of)  
 RN 13333-10-3 HCAPLUS  
 CN Propionamide, N,2,2-trimethyl-N-(methylphenethylsulfamoyl)- (8CI)  
 (CA INDEX NAME)



IC C07C  
 CC 25 (Noncondensed Aromatic Compounds)  
 IT 13333-09-0P 13333-10-3P 13333-11-4P 13333-12-5P  
 13333-27-2P 13333-28-3P 13333-29-4P 13333-30-7P  
 13333-31-8P 13333-32-9P 13333-33-0P 13333-34-1P  
 13333-35-2P 13333-36-3P 13560-34-4P, Sulfamide,  
 N-methyl-N-(2-phenylcyclopropyl)- 13560-34-4P  
 (preparation of)

L24 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1965:15047 HCAPLUS  
 DOCUMENT NUMBER: 62:15047  
 ORIGINAL REFERENCE NO.: 62:2705c-e  
 TITLE: Syntheses with N,N'-disubstituted sulfuric acid diamides. IV. Acetylation of 1,3-disubstituted sulfuric acid diamides  
 AUTHOR(S): Sowada, Rudolf  
 CORPORATE SOURCE: Tech. Hochschule, Leuna, Merseburg, Germany  
 SOURCE: Journal fuer Praktische Chemie (Leipzig) (1964), 26(3-4), 184-94.  
 CODEN: JPCEAO; ISSN: 0021-8383

DOCUMENT TYPE: Journal

LANGUAGE: German

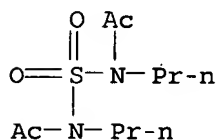
OTHER SOURCE(S): CASREACT 62:15047

AB cf. CA 61, 11884a. 1,3-Disubstituted  $\text{SO}_2(\text{NH}_2)_2$  can be acetylated in 75-86% yield on the N atoms by means of  $\text{Ac}_2\text{O}$  in the presence of catalytic amts. of concentrated  $\text{H}_2\text{SO}_4$  at  $50^\circ$ . The resulting di-Ac derivs. are very sensitive to bases and are readily deacetylated to the starting material; they dissolve in concentrated  $\text{H}_2\text{SO}_4$  with the cleavage of the Ac group. The preparation of the corresponding 1,3-di-Bz derivs. failed because the N-S bond of the amides is considerably weakened by the acyl groups.  $\text{SO}_2(\text{NHPr})_2$  (18.0 g.) added at  $50^\circ$  with stirring to 30 cc.  $\text{Ac}_2\text{O}$  and 1 cc. concentrated  $\text{H}_2\text{SO}_4$ , kept 1 hr. at  $50^\circ$ , and poured into 100-50 cc.  $\text{H}_2\text{O}$  gave 22.8 g.  $\text{SO}_2(\text{NACPr})_2$ , b1.6  $133^\circ$ ,  $n_{20D}$  1.4701,  $d_{20}$  1.160.  $\text{SO}_2(\text{NHBu})_2$  (I) (20.8 g.) gave similarly 24.0 g.  $\text{SO}_2(\text{NACBu})_2$  (II), b2.4  $153^\circ$ ,  $n_{20D}$  1.4678,  $d_{20}$  1.111.  $\text{SO}_2(\text{NHCH}_2\text{CHMe}_2)_2$  (III) (20.8 g.) gave 22.0 g.  $\text{SO}_2(\text{NACCH}_2\text{CHMe}_2)_2$  (IV), b1.7  $142^\circ$ ,  $n_{20D}$  1.4693,  $d_{20}$  1.117. II (2.92 g.) and 30 cc. 10% aqueous NaOH refluxed 10 min. and stirred into 80 cc. cold  $\text{H}_2\text{O}$  gave 1.55 g. I, leaflets, m.  $126-7^\circ$ . IV (2.92 g.) gave similarly 1.3 g. III, leaflets, m.  $104-5^\circ$ . II (2.92 g.) treated 10 min. at room temperature with 25 cc. concentrated  $\text{H}_2\text{SO}_4$  and stirred into 100 cc.  $\text{H}_2\text{O}$  gave 1.4 g. I. IV (2.92 g.) gave similarly 1.2 g. III, m.  $103.5-4.5^\circ$ .

IT 756-41-2, Acetamide, N,N'-sulfonylbis[N-propyl-  
756-42-3, Acetamide, N,N'-sulfonylbis[N-butyl-  
758-73-6, Acetamide, N,N'-sulfonylbis[N-isobutyl-  
(preparation of)

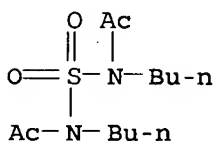
RN 756-41-2 HCAPLUS

CN Acetamide, N,N'-sulfonylbis[N-propyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



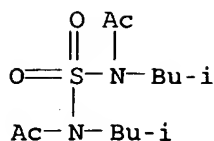
RN 756-42-3 HCAPLUS

CN Acetamide, N,N'-sulfonylbis[N-butyl- (7CI, 8CI) (CA INDEX NAME)



RN 758-73-6 HCAPLUS

CN Acetamide, N,N'-sulfonylbis[N-isobutyl- (7CI, 8CI) (CA INDEX NAME)



CC 33 (Aliphatic Compounds)

IT 756-41-2, Acetamide, N,N'-sulfonylbis[N-propyl-  
 756-42-3, Acetamide, N,N'-sulfonylbis[N-butyl- 757-98-2,  
 Sulfamide, N,N'-diisobutyl- 758-73-6, Acetamide,  
 N,N'-sulfonylbis[N-isobutyl- 763-11-1, Sulfamide, N,N'-dibutyl-  
 (preparation of)

L24 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1964:23426 HCAPLUS  
 DOCUMENT NUMBER: 60:23426  
 ORIGINAL REFERENCE NO.: 60:4154h,4155a-d  
 TITLE: Dialkyl (2,2-dichloro-1-aminovinyl) phosphates  
 INVENTOR(S): Schuler, Max; Helfenberger, Hans; Lutz, Karl  
 PATENT ASSIGNEE(S): Sandoz Ltd.  
 SOURCE: 24 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1339156		19631004	FR	
DE 1227449			DE	
GB 969829			GB	
US 3183258		1965	US	
US 3183288		1965	US	
PRIORITY APPLN. INFO.:			CH	
				1961
				1110

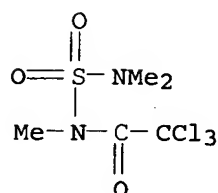
AB RR'NCOCCl3 (I) and trialkyl phosphites give  
 (RO)2P(O)OC(NR'R'):CCl2 (II), which can be used as parasiticides.  
 Thus, a solution of 24 g. HCONHMe in 20 mL. Cl2C:CHCl is added in  
 .apprx.1 h. to a refluxing solution of 61 g. Cl3CCOCl in 300 mL.  
 Cl2C:CHCl, and the mixture refluxed 3 h. and distilled to give  
 .apprx.90% N-trichloroacetyl-N-methylacetamide; b0.0653-7°,  
 n20D 1.5040. Similarly prepared are the following I (R, R', and  
 phys. consts. given): Me, SO2NMe2, m. 106° (alc.); Me, CHO,  
 b0.1 50-2°; Et, CHO, b0.06 48-50°; Et, Ac, b0.3  
 62°; Me, CO2Me, b0.1 67°; Me, CO2Et, b12  
 114°; Et, CO2Me, b0.1 70-1°; Et, CO2Et, b0.03  
 74-5°; Me, EtCO, n20D 1.4999; Me, CONHMe, b0.15 86°,  
 m. 34-8°; Me, CONMe2, b0.04 93°; Me, CONEt2, -, Et,  
 SO2NMe2, m. 69-71°; Me, SO2NEt2, -, Et, SO2NEt2, b0.2  
 117-20°; (NRR' =) 2-oxopyrrolidinyl, b0.1 106°;  
 (NRR' =) 2-oxazolidinon-3-yl, m. 77°; (NRR' =)  
 2-imidazolidinon-1-yl, m. 144°; (NRR' =)  
 2-oxo-5-methylpyrrolidinyl, m. 38°; (NRR' =)  
 2-oxopiperidino, m. 84°. A mixture of 92.2 g. I (NRR' =  
 2-oxopyrrolidinyl) and 300 mL. xylene is heated at 80°,

52.1 g. (MeO)3P added in 20 min. (the temperature rises to 90-110°), the mixture agitated 1 h. at 100-10°, and the xylene distilled in vacuo, to give .apprx.90% O,O-di-Me O-[1-(2-oxopyrrolidinyl)-2,2-dichlorovinyl] phosphate. Similarly prepared are the following II (R, R', and R'' given): Me, (NR'R'' =) 2-oxopyrrolidinyl; Me, Me, SO2NEt2; Et, (NR'R'' =) 2-oxazolidinon-3-yl; Me, Me, CHO (b0.1 103-6°); Et, Me, CHO (b0.08 105-8°); Me, Et, CHO (b0.08 112-15°); Et, Et, CHO (n20D 1.4696); Me, Me, Ac; Et, Me, Ac; Me, Et, Ac; Et, Et, Ac; Me, Me, EtCO (n20D 1.4787); Et, Me, EtCO (n20D 1.4686); Me, Me, CO2Me; Et, Me, CO2Me (n20D 1.4712); Me, Me, CO2Et (b0.04 122-6°, n20D 1.4675); Et, Me, CO2Et (b0.02 120-2°, n20D 1.4625); Me, Et, CO2Et (b0.02 123-5°, n20D 1.4698); Et, Et, CO2Et (b0.06 132°, n20D 1.4648); Me, Et, CO2Me (n20D 1.4749); Et, Et, CO2Me (n20D 1.4650); Me, Me, CONHMe; Et, Me, CONHMe; Et, Me, CONMe2; Me, Me, CONEt2; Et, Me, CONEt2; Et, Me, SO2NEt2; Me, Me, SO2NMe2; Et, Me, SO2NMe2; Me, Et, SO2NEt2; Et, Et, SO2NEt2; Me, (NR'R'' =) 2-oxazolidinon-3-yl; Me, (NR'R'' =) 2-oxoimidazolidinon-1-yl; Et, (NR'R'' =) 2-oxoimidazolidinon-1-yl; Me, (NR'R'' =) 2-oxo-5-methyl-pyrrolidinyl; Et, (NR'R'' =) 2-oxo-5-methylpyrrolidinyl; Me, (NR'R'' =) 2-oxopiperidino; Et, (NR'R'' =) 2-oxopiperidino; Me, Et, SO2NMe2; Et, Et, SO2NMe2. Also prepared is EtO(MeO)P(O)OC[N(CONMe2)Me]:CCl2.

IT 89181-42-0, Acetamide, 2,2,2-trichloro-N-(dimethylsulfamoyl)-N-methyl- 89582-87-6, Acetamide, 2,2,2-trichloro-N-(dimethylsulfamoyl)-N-ethyl- 89693-59-4, Acetamide, 2,2,2-trichloro-N-(diethylsulfamoyl)-N-methyl- 92064-01-2, Acetamide, 2,2,2-trichloro-N-(diethylsulfamoyl)-N-ethyl- (preparation of)

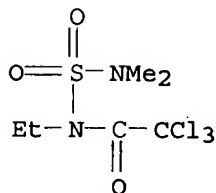
RN 89181-42-0 HCAPLUS

CN Acetamide, 2,2,2-trichloro-N-(dimethylsulfamoyl)-N-methyl- (7CI) (CA INDEX NAME)



RN 89582-87-6 HCAPLUS

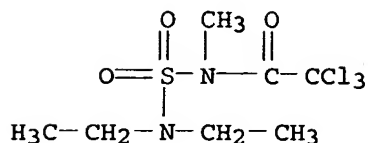
CN Acetamide, 2,2,2-trichloro-N-(dimethylsulfamoyl)-N-ethyl- (7CI) (CA INDEX NAME)



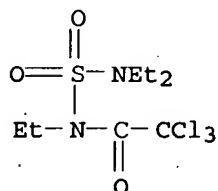
RN 89693-59-4 HCAPLUS

CN Acetamide, 2,2,2-trichloro-N-(diethylsulfamoyl)-N-methyl- (7CI)

(CA INDEX NAME)



RN 92064-01-2 HCAPLUS

CN Acetamide, 2,2,2-trichloro-N-(diethylsulfamoyl)-N-ethyl- (7CI)  
(CA INDEX NAME)

IC A01N; C07F

CC 38 (Heterocyclic Compounds (More Than One Hetero Atom))

IT 17676-82-3, Phosphoric acid, dimethyl ester, ester with N-(2,2-dichloro-1-hydroxyvinyl)-N-methylformamide 17676-83-4, Phosphoric acid, diethyl ester, ester with N-(2,2-dichloro-1-hydroxyvinyl)-N-methylformamide 17676-84-5, Phosphoric acid, dimethyl ester, ester with N-(2,2-dichloro-1-hydroxyvinyl)-N-ethylformamide 17676-85-6, Phosphoric acid, diethyl ester, ester with N-(2,2-dichloro-1-hydroxyvinyl)-N-ethylformamide 17676-86-7, Phosphoric acid, dimethyl ester, ester with N-(2,2-dichloro-1-hydroxyvinyl)-N-methylacetamide 17676-88-9, Phosphoric acid, dimethyl ester, ester with N-(2,2-dichloro-1-hydroxyvinyl)-N-ethylacetamide 17676-89-0, Phosphoric acid, dimethyl ester, ester with N-(2,2-dichloro-1-hydroxyvinyl)-N-methylpropionamide 17676-90-3, Carbamic acid, (2,2-dichloro-1-hydroxyvinyl)methyl-, methyl ester, di-Me phosphate 17676-91-4, Carbamic acid, (2,2-dichloro-1-hydroxyvinyl)methyl-, methyl ester, di-Et phosphate 17676-92-5, Carbamic acid, (2,2-dichloro-1-hydroxyvinyl)methyl-, ethyl ester, di-Me phosphate 17676-93-6, Carbamic acid, (2,2-dichloro-1-hydroxyvinyl)methyl-, ethyl ester, di-Et phosphate 17676-94-7, Carbamic acid, (2,2-dichloro-1-hydroxyvinyl)ethyl-, ethyl ester, di-Me phosphate 17676-95-8, Carbamic acid, (2,2-dichloro-1-hydroxyvinyl)ethyl-, ethyl ester, di-Et phosphate 17676-97-0, Phosphoric acid, diethyl ester, ester with 1-(2,2-dichloro-1-hydroxyvinyl)-1,3,3-trimethylurea 17676-98-1, Phosphoric acid, dimethyl ester, ester with 1-(2,2-dichloro-1-hydroxyvinyl)-3,3-diethyl-1-methylurea 17676-99-2, Phosphoric acid, diethyl ester, ester with 1-(2,2-dichloro-1-hydroxyvinyl)-3,3-diethyl-1-methylurea 17677-00-8, Phosphoric acid, dimethyl ester, ester with N-(2,2-dichloro-1-hydroxyvinyl)-N,N',N'-trimethylsulfamide 17677-01-9, Phosphoric acid, diethyl ester, ester with N-(2,2-dichloro-1-hydroxyvinyl)-N,N',N'-trimethylsulfamide 17677-02-0, Phosphoric acid, dimethyl ester, ester with N-(2,2-dichloro-1-hydroxyvinyl)-N',N'-diethyl-N-methylsulfamide 17677-03-1, Phosphoric acid, diethyl ester, ester with

N-(2,2-dichloro-1-hydroxyvinyl)-N',N'-diethyl-N-methylsulfamide  
 17677-04-2, Phosphoric acid, dimethyl ester, ester with  
 N-(2,2-dichloro-1-hydroxyvinyl)-N,N',N'-triethylsulfamide  
 17677-05-3, Phosphoric acid, diethyl ester, ester with  
 N-(2,2-dichloro-1-hydroxyvinyl)-N,N',N'-triethylsulfamide  
 17677-06-4, Phosphoric acid, dimethyl ester, ester with  
 1-(2,2-dichloro-1-hydroxyvinyl)-2-pyrrolidinone 17677-08-6,  
 Phosphoric acid, diethyl ester, ester with 3-(2,2-dichloro-1-  
 hydroxyvinyl)-2-oxazolidinone 17677-09-7, Phosphoric acid,  
 dimethyl ester, ester with 1-(2,2-dichloro-1-hydroxyvinyl)-2-  
 imidazolidinone 17677-11-1, Phosphoric acid, dimethyl ester,  
 ester with 1-(2,2-dichloro-1-hydroxyvinyl)-2-piperidone  
 17677-12-2, Phosphoric acid, diethyl ester, ester with  
 1-(2,2-dichloro-1-hydroxyvinyl)-2-piperidone 18487-00-8,  
 Phosphoric acid, diethyl ester, ester with 1-(2,2-dichloro-1-  
 hydroxyvinyl)-2-pyrrolidinone 66878-91-9, Acetamide,  
 2,2,2-trichloro-N-formyl-N-methyl- 89181-02-2, 2-Oxazolidinone,  
 3-(trichloroacetyl)- 89181-42-0, Acetamide,  
 2,2,2-trichloro-N-(dimethylsulfamoyl)-N-methyl- 89182-41-2,  
 Acetamide, 2,2,2-trichloro-N-ethyl-N-formyl- 89380-37-0,  
 2-Pyrrolidinone, 1-(trichloroacetyl)- 89463-83-2, Urea,  
 1,3-dimethyl-1-(trichloroacetyl)- 89581-18-0, Propionamide,  
 N-methyl-N-(trichloroacetyl)- 89581-19-1, Carbamic acid,  
 ethyl(trichloroacetyl)-, methyl ester 89582-87-6,  
 Acetamide, 2,2,2-trichloro-N-(dimethylsulfamoyl)-N-ethyl-  
 89641-92-9, Urea, 1,1,3-trimethyl-3-(trichloroacetyl)-  
 89693-54-9, Phosphoric acid, dimethyl ester, ester with  
 1-(2,2-dichloro-1-hydroxyvinyl)-1,3-dimethylurea  
 89693-59-4, Acetamide, 2,2,2-trichloro-N-  
 (diethylsulfamoyl)-N-methyl- 89728-71-2, Carbamic acid,  
 ethyl(trichloroacetyl)-, ethyl ester 89792-92-7, 2-Piperidone,  
 1-(trichloroacetyl)- 89792-93-8, 2-Pyrrolidinone,  
 5-methyl-1-(trichloroacetyl)- 89850-45-3, Carbamic acid,  
 methyl(trichloroacetyl)-, ethyl ester 90090-22-5, Urea,  
 1,1-diethyl-3-methyl-3-(trichloroacetyl)- 90797-34-5, Phosphoric  
 acid, dimethyl ester, ester with 1-(2,2-dichloro-1-hydroxyvinyl)-5-  
 methyl-2-pyrrolidinone 90801-08-4, Diacetamide,  
 2,2,2-trichloro-N-methyl- 90801-09-5, Carbamic acid,  
 methyl(trichloroacetyl)-, methyl ester 90867-86-0, Phosphoric  
 acid, dimethyl ester, ester with N-(2,2-dichloro-1-hydroxyvinyl)-N-  
 ethyl-N',N'-dimethylsulfamide 90952-67-3, Carbamic acid,  
 (2,2-dichloro-1-hydroxyvinyl)ethyl-, methyl ester, di-Me phosphate  
 91251-11-5, Phosphoric acid, diethyl ester, ester with  
 1-(2,2-dichloro-1-hydroxyvinyl)-5-methyl-2-pyrrolidinone  
 91448-16-7, Diacetamide, 2,2,2-trichloro-N-ethyl- 91951-70-1,  
 Carbamic acid, (2,2-dichloro-1-hydroxyvinyl)ethyl-, methyl ester,  
 di-Et phosphate 92064-01-2, Acetamide,  
 2,2,2-trichloro-N-(diethylsulfamoyl)-N-ethyl- 92145-44-3,  
 Phosphoric acid, ethyl Me ester, ester with 1-(2,2-dichloro-1-  
 hydroxyvinyl)-1,3,3-trimethylurea 94406-27-6, Phosphoric acid,  
 diethyl ester, ester with N-(2,2-dichloro-1-hydroxyvinyl)-N-  
 methylpropionamide 856648-40-3, Sulfamide, N-(2,2-dichloro-1-  
 hydroxyvinyl)-N',N'-diethyl-N-methyl-, phosphate  
 (preparation of)